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ABSTRACT

This paper is a study of the subclassification of English verbs in generative grammar. It is intended to discuss the subclassification of English verbs in terms of complement types and to investigate the problem of nonlocalization in complement constructions. Some verbs permit a "whether"-complement or a "that"-complement if and only if they are under the influence of indefinite elements like negation and interrogation. The nonlocalization is treated within the framework of modal structures. (Author)

ON THE SUBCLASSIFICATION OF VERBS IN TERMS OF COMPLEMENT TYPES*

Tomonori Okamoto

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0. Introduction

This paper is a study of the subclassification of English verbs in generative grammar. It is intended to discuss the subclassification of English verbs in terms of complement types and to investigate the problem of non-localization in complement constructions. Some verbs permit a *whether*-complement or a *that*-complement if and only if they are under the influence of indefinite elements like negation and interrogation.[1] We treat the non-localization within the framework of modal structures.

0.1 Subclassification of Verbs in Terms of Local Determinacy

Chomsky (1973, pp. 277-82) subclassifies verbs taking a WH-complement and/or a *that*-complement into three as follows;

-WH COMP: believe
±WH COMP: tell
+WH COMP: wonder

He states that the sentences (1) and (3) are derived from the underlying structures (2) and (4), respectively.

(1) I believe (that) John saw Bill.
(2) I believe [-WH John saw Bill]
(3) I wonder who Bill saw.
(4) I wonder [+WH Bill saw someone]

The verbs *believe* and *wonder* differ lexically in that the former requires -WH COMP and the latter requires +WH COMP. The verb *tell* requires +WH COMP in sentences like (5) and -WH COMP in sentences like (7). The sentence (5) is derived from the underlying structure (6), but the sentence (7) is derived from (8).

(5) I told him who would leave.
(6) I told him [+WH someone would leave]
(7) I told him that it is raining.
(8) I told him [-WH it is raining]

I. Extended Subclassification of Verbs

As Chomsky's analysis is not enough, we propose an extended analysis for the subclassification of verbs. Verbs taking a WH-complement and/or a *that*-complement are subclassified into five classes as follows;

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* This is a revised and expanded version of my paper 'A note on indirect questions in English', orally presented in the ICU Summer Institute in Linguistics, held August 1974. I would like to express my deep gratitude to Professors Tsugiyoshi Torii, Minoru Nakau, Shoichi Oguro, and Shinichi Uno, for their invaluable comments and advice. I am also grateful to Mr. Joseph C. Chryst.

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Verb Class	local	non-local	
V1	+WH COMP	-	: ask, question, wonder, inquire, query,
V2	+WH COMP	-WH COMP	: doubt, be doubtful, be dubious,
V3	±WH COMP	-	: tell, decide, depend on,
V4	-WH COMP	+WH COMP	: know, ascertain, be clear, be sure,
V5	-WH COMP	-	: believe, think, assert, hope, claim,

We represent verbs taking a WH-complement as +WH COMP and verbs taking a that-complement as -WH COMP. When a verb can be defined in terms of strict subcategorization in the lexicon, we say that it is possible that the verb is 'locally' determined. If a verb cannot be defined in terms of strict subcategorization, the verb is said to be not 'locally' but 'non-locally' determined. In the latter case grammatical categories such as negation, question and higher verbs cooperate with the verb in order to constitute an appropriate environment. Verbs like ask, question, wonder, and inquire (V1) take only a WH-complement locally, and do not permit a that-complement in a non-local environment. Ask in V1 is used in the sense of calling for an answer, but not of making a request.[2] Verbs like doubt, be doubtful, and be dubious (V2) take a WH-complement locally, and permit a that-complement when they are under the influence of negation or interrogation in forming a favorite context. Verbs such as tell, decide, and depend on (V3) permit both a WH-complement and a that-complement locally, but they are irrelevant to the non-localization of their context. Verbs like know, ascertain, and be certain (V4) permit a that-complement locally and a WH-complement non-locally. When a higher verb such as want, long and be curious dominates the item know, a context qualified for a WH-complement is fulfilled. Negation, future, and interrogation play the same role. Verbs like believe, think, and assert (V5) take a that-complement locally, but do not permit a WH-complement. We do not treat the other complement constructions (i.e., for-to and POSS-ing complements).

I.1 V1-Verbs (ask, question, wonder, inquire)

V1-verbs take only a WH-complement locally, and do not permit a that-complement even if a sentence containing it is negated or questioned. The sentence (9) is grammatical, but the sentences (10)-(12) are ungrammatical.

(9) He wondered whether he should open the window.
(10) *He wondered that he should open the window.
(11) *Did he wonder that he should open the window?
(12) *He didn't wonder that he should open the window.

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The sentence (9) is derived from the underlying structure (13).

(13) He wondered [+WH he should open the window]

When the complement of (9) contains a WH-word like who and which and the initial clause is questioned, the WH-word is moved to the embedded-clause initial position, but not to the sentence-initial position. Consider the sentences (14) and (15).

(14) Did he wonder what he should do?

(15) *What did he wonder he should do?

The sentence (14) is derived from the underlying structure (16), but not from (17).

(16) -WH he wondered [+WH he should do something]

(17) +WH he wondered [-WH he should do something]

I.2 V2-Verbs (doubt, be doubtful, be dubious)

Verbs like doubt and be dubious take a WH-complement locally, and they do not permit a that-complement without changing the original meaning.[3] The sentences (18) and (19) differ in that whether (or if) is used to imply that uncertainty exists, that (or but that) to imply that suspect or fear exists.

(18) I doubt whether or not modern authorities would agree with me on this point.

(19) I doubt that modern authorities would agree with me on this point.

The sentence (18) is derived from the underlying structure (20), but (19) is derived from (21).

(20) I doubt [+WH modern authorities would agree with on this point]

(21) I doubt [-WH modern authorities would agree with on this point]

As the sentence (18) is not derived from (21), we distinguish doubt in (18) from that in (19) in order to make clear our purpose, and we call the former case a V2-verb. Sentences containing a V2-verb do not permit a WH-complement when they are negated or interrogated, and then, they take a that-complement. Consider the following sentences.

(22) It is not doubtful that he will win.

(23) *It is not doubtful whether he will win.

(24) Is it doubtful that he will win?

(25) *Is it doubtful whether he will win?

In order that sentences containing doubtful constitute a context qualified for a that-complement, the item is described in terms of non-local determinacy. However, when verbs like want and long on the one hand, and auxiliaries like will dominate sentences containing a V2-verb, the sentences are marked ungrammatical.

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(26) *It will be doubtful that John will come.

(27) *It will be doubtful whether John will come.

(28) *I want to doubt that he has the habit of scratching his head when he is puzzled.

(29) *I want to doubt whether he has the habit of scratching his head when he is puzzled.

Verbs of volition and auxiliaries of future cannot dominate V2-verbs.

I.3 V3-Verbs (tell, decide, depend on)

V3-verbs take both a WH-complement and a that-complement locally, and therefore are marked as ±WH COMP.

(30) Everything depends on whether you pass the examination.

(31) You may depend upon it that every member of the Committee will support your proposal.

The sentence (30) is derived from the underlying structure (32), and (31) from (33).

(32) Everything depends on [+WH you pass the examination]

(33) You may depend upon it [-WH every member of the Committee will support your proposal]

Chomsky (1973. p. 280) points out that the verb tell can freely take ±WH as COMP in the embedded sentences; indirect questions and sentential complements. We add the sentence (34) as one containing a free relative.

(34) I told him what Bill asked me to tell.

(I told him [PRO [-WH Bill asked me to tell him something]])

I.4 V4-Verbs (know, ascertain, be clear, be sure)

V4-verbs permit a that-complement locally, and they take a WH-complement when a certain verb, negation, or interrogation affects them.

(35) It was clear that the war would not end quickly.

The sentence (35) is derived from the underlying structure (36) by the rule of Extraposition.

(36) [-WH the war would not end quickly] was clear.

Bresnan (1972, p. 67) states that certain verbs, which sometimes seem incompatible with a WH-complement, nevertheless occur with WH in contexts implying uncertainty or openness. Kajita (1969) points out that verbs like know, find out, ascertain, establish, and testify permit a whether-complement in certain environments and that the contextual feature [___ whether S] cannt be localized.

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(37) *It's clear whether he's going.[4]

When the sentence (37) is negated, it becomes an acceptable sentence.

(38) It's not clear whether he's going.

The sentence (38) is derived from the underlying structure (39).

(39) [+WH he's going] is not clear.

Interrogation affects (37) so that it is regarded as acceptable. Notice the following sentence.

(40) Is it clear yet whether he's going?

The auxiliary of future will also plays the same role.

(41) It will be clear whether he's going (or not) as soon as we see his wife.

When verbs such as want, be anxious, and be curious dominate the item know, the sequences of want (or be anxious, be curious) - know take only a WH-complement, but not a that-complement. Consider the following sentence.

(42) Susan wants to know whether Bob loves her.[5]

The sentence (42) is derived from the underlying structure (43), but not from (44).

(43) Susan wants to know [+WH Bob loves her]

(44) Susan wants to know [-WH Bob loves her]

The structure (44) would derive an ungrammatical sentence like (45).

(45) *Susan wants to know that Bob loves her.

(46) I'm anxious to know whether or not the cathedral was built during the Middle Age.[6]

(47) *I'm anxious to know that the cathedral was built during the Middle Age.

(48) He is curious to know whether or not everything is ready in time.[7]

(49) *He is curious to know that everything is ready in time.

Verbs like be happy and be glad function in the opposite way. When they dominate the item know, the sequences of be happy (or be glad) - know take a that-complement, but not a WH-complement.

(50) I'm happy to know that the position was offered to Mr, Black.

The sentence (50) is derived from the underlying structure (51), but not from the structure (52).

(51) I'm happy to know [-WH the position was offered to Mr. Black]

(52) I'm happy to know [+WH the position was offered to Mr. Black]

The structure (52) would derive the unacceptable sentence (53).

(53) *I'm happy to know whether or not the position was offered to Mr. Black.

(54) I'm glad to know that they gave the first prize to Mr. Green.

(55) *I'm glad to know whether or not they gave the first prize to Mr. Green.

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The semantic component of generative grammar will treat the phenomena noted above.

Kajita (1974, pp. 399-403) states that items such as before, too, and be difficult have the same property of negation.

(56) Before we know whether he is innocent, his mother becomes sick.

(57) Whether the theory explains all the facts is more difficult to establish.

(58) It is too early to say whether he is innocent.

He gives other environments besides negation; need, in order to, and so on.

(59) You'll need to know whether you can do it by yourself.

(60) The judge asked the accused, demanding to know whether he was in the building at that night.

(61) It would be necessary first to check Fred's blood in order to ascertain whether or not it was of the same type as Papa's.

I.5 V5-Verbs (believe, think, assert, hope)

Verbs like think, believe, and assert take only a that-complement locally, and they do not permit a WH-complement even if a sentence containing a V5-verb is negated or interrogated.

(61) I believe (that) the plan will fail.

The sentence (61) has an underlying structure such as (62), but not (63).

(62) I believe [-WH the plan will fail]

(63) I believe [+WH the plan will fail]

The structure (63) would derive the ungrammatical sequence (64).

(64) *I believe whether the plan will fail.

When the complement of a V5-verb contains a WH-word and the initial clause is questioned, the WH-word is moved to the sentence-initial position, but not to the embedded-clause initial position. Consider the sentence (65).

(65) What do you think (that) John reads?

The sentence (65) is derived from the underlying structure (66), but not from (67).

(66) +WH you think [-WH John reads something]

(67) -WH you think [+WH John reads something]

The structure (67) would derive the unfavorable sequence (68).

(68) *Do you think what John reads?

We distinguish the ungrammatical sentence (68) from the grammatical one (69).

(69) Think how delighted he will be.

The sentence (69) is derived from (70).

(70) Think [-WH he will be MUCH delighted]

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The rule of Exclamation Formation operates on the underlying structure (70).[9]

II. Semantic Interpretation of Complement Constructions

Katz and Postal (1964) propose that two types of projection rules be contained in the semantic component of generative grammar so that they create readings for a tree which is generated as deep structure in the base. Type 1 projection rules create readings for a tree by combining the readings of lower constituents to produce readings for higher constituents. When the readings of all constituents have been amalgamated, there is a reading associated with the highest node S. We neglect type 2 projection rules since their role coincides with recursive property of the base in Aspects model. According to their proposal the underlying structure (71) is interpreted from the bottom to the top.

(71) $[_S [_{NP}$John$] [_{VP} [_V$drank$] [_{NP} [_{Det}$the$] [_N$milk$]]]]$

The projection rule operates on the underlying phrase markers depending on fundamental grammatical relations like 'subject', 'object', and a category like 'verb phrase'. First, it operates on the 'object' phrase markers producing the reading of the noun phrase the milk. Second, the amalgamation of the verb drank and the object noun phrase the milk produces the reading drank the milk. Finally, the subject noun phrase John and the verb phrase drank the milk are amalgamated to derive the reading of the sentence (72).

(72) John drank the milk.

The projection rules can operate on the underlying phrase structures which contain the verbs defined in terms of local determinacy. As discussed above, verbs like question (V1), tell (V3), and believe (V5) determine their complements locally. Consider the following structures.

(73) $[_S [_{NP}$He$] [_{Aux}$Past$] [_{VP} [_V$wonder$] [_S$+WH he should open the window$]]]$

(74)(a) $[_S [_{NP}$Everything$] [_{Aux}$Present$] [_{VP} [_V$depend on$] [_S$+WH we have enough money$]]]$

(b) $[_S [_{NP}$She$] [_{Aux}$Past$] [_{VP} [_V$tell$] [_S$-WH it might be better to wait$]]]$

(75) $[_S [_{NP}$I$] [_{Aux}$Present$] [_{VP} [_V$believe$] [_S$-WH he is honest$]]]$

The structures produce the well-formed readings (76)-(78) by the projection rules.

(76) He wondered whether he should open the window.

(77)(a) Everything depends on whether we have enough money.

(b) She told that it might be better to wait.

(78) I believe that he is honest.

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Verbs like doubt (V2) and know (V4) can be defined locally unless they occur with indefinite elements such as negation and interrogation.

(79) $[_S [_{NP}$I$] [_{Aux}$Present$] [_{VP} [_V$doubt$] [_S$+WH she would agree with him$]]]$

(80) $[_S [_{NP}$We$] [_{Aux}$Past$] [_{VP} [_V$know$] [_S$-WH they were innocent$]]]$

The underlying structures (79) and (80) create the well-formed readings (81) and (82), respectively.

(81) I doubt whether she would agree with him.

(82) We knew that they were innocent.

II.1 The Deficiency of the Projection Rules

The projection rules presented by Katz and Postal have the difficulty that they cannot produce the readings of the sentences discussed in Sections I.2 and I.4. The projection rules do not operate properly where verbs like doubt (V2) and know (V4) occur with indefinite elements such as questions and negation.

(83) Do you doubt that I can do the work?

(84) She does not doubt that Tom will buy some books.[10]

The sentences (83) and (84) are derived from the underlying structures (85) and (86), respectively.

(85) $[_S$Ques$ [_{NP}you] [_{VP} [_V$doubt$] [_S$-WH I can do the work$]]]$

(86) $[_S$Neg$ [_{NP}she] [_{VP} [_V$doubts$] [_S$-WH Tom will buy some books$]]]$

The Neg in the sentence (84) is a sentence negation since it is possible that (84) has the paraphrase (87).[11]

(87) It is not so that she doubts that Tom will buy some books.

The projection rules amalgamate the readings of the verb doubt and its complement of (85) and produce the reading doubt that I can do the work. In the reading of the verb phrase in (85) the item doubt is interpreted as 'fear'. But the verb doubt of the whole structure (85) is used in the sense of 'feel uncertain'. That is, the reading of the verb doubt changes through the amalgamation of the projection rules. When the item doubt occur with the indefinite element 'Ques', it permits a that-complement in the sense of 'feel uncertain'.

The device of the projection rules is not sufficient when we describe the complement constructions which cannot be defined in terms of local determinacy. Consider the underlying phrase structure (88).

(88) $[_S [_{NP}$He$] [_{Aux}$Present$] [_{VP} [_V$be sure$] [_S$+WH I can solve the problem$]]]$

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The projection rules operate on the verb phrase of (88) and detect the semantic anomaly of (88). In this case, the projection rules can predict the anomaly of (89).

(89) *He's sure whether I can solve the problem.

When the structure (88) contains an indefinite element such as negation, question, and futurity, the projection rules prove to be deficient.

(90) $[_S [_{NP}$He$] [_{Aux}$will$] [_{VP} [_V$be sure$] [_S$+WH I can solve the problem$]]]$

(91) $[_S$Ques$ [_{NP}He] [_{Aux}$Present$] [_{VP} [_V$be sure$] [_S$+WH I can solve the problem$]]]$

(92) $[_S$Neg$ [_{NP}He] [_{Aux}$Present$] [_{VP} [_V$be sure$] [_S$+WH I can solve the problem$]]]$

The projection rules operate on the verb be sure and its complement in (90)-(92) and mark the verb phrase anomalous since the combination of a V4-verb and a WH-complement is not properly interpreted. The projection rules fail to detect the well-formed readings of (90)-(92). When indefinite elements like negation, question, and futurity cooperate with a V4-verb such as be sure, a WH-complement is permitted and, therefore, the projection rules must create the properly formed readings of (90)-(92).

(93) He will be sure whether I can solve the problem.

(94) Is he sure whether I can solve the problem?

(95) He isn't sure whether I can solve the problem.

Verbs like want, be curious, and be anxious play the same role.

(96) $[_S [_{NP}$He$] [_{VP} [_V$is curious$] [_S [_{NP}$PRO$] [_{VP}$to $[_V$know$] [_S$+WH everything is ready in time$]]]]]$

(97) $[_S [_{NP}$He$] [_{VP} [_V$is curious$] [_S [_{NP}$PRO$] [_{VP}$to $[_V$know$] [_S$-WH everything is ready in time$]]]]]$

The projection rules operate on the verb know and the complement +WH everything is ready in time in (96) or -WH everything is ready in time in (97) and the apparently well-defined reading of (97) and the apparently anomalous reading of (96) are produced. However, the underlying structures (96) and (97) derive the well-formed sentence (98) and the ill-formed sentence (99), respectively.

(98) He is curious to know whether everything is ready in time.

(99) *He is curious to know that everything is ready in time.

Verbs such as be happy and be glad show the opposite aspect of V4-verbs. The sequences of be glad to know takes only a that-complement.

(100) $[_S [_{NP}$I$] [_{VP} [_V$am glad$] [_S [_{NP}$PRO$] [_{VP}$to$ [_V$know$] [_S$-WH they won the game$]]]]]$

(101) $[_S [_{NP}$I$] [_{VP} [_V$am glad$] [_S [_{NP}$PRO$] [_{VP}$to$ [_V$know$] [_S$+WH they won the game$]]]]]$

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The projection rules operate on the item know and its complement, and produce the reading of know that they won the game and detect the semantic anomaly of know whether they won the game. When they operate on the highest S of (100), they create the well-formed reading of (100). But the derivation of (101) is anomalous.

(102) I am glad to know that they won the game.

(103) *I am glad to know whether they won the game.

II.2 Modal Structures on Complement Constructions

We have shown the deficiency of the projection rules where they operate on the complement constructions defined in terms of non-localization. We have noticed that it is necessary to constitute a device different from the projection rules by Katz and Postal which deals with the phenomena of non-localization. Following Jackendoff (1972), we propose the modal projection rule for complement sentences as follows:

(104) Modal projection rule for complement sentences
Given a lexical item A whose semantic representation contains a modal element M. If a complement sentence dominated by a V2-verb or a V4-verb is within the scope of A, it is obligatorily dependent or M in the modal structure.

Modal elements include 'unrealized', 'question', 'negation', 'future', and 'obligation' as shown below.

(105) Modal elements
(a) Unrealized; want, be curious, be anxious, let, would like to, long, in order to, be important, try, demand, before,
(b) Future; will,
(c) Negation; not, too, impossible, incompetent, difficult,
(d) Question;
(e) Obligation; must, should,

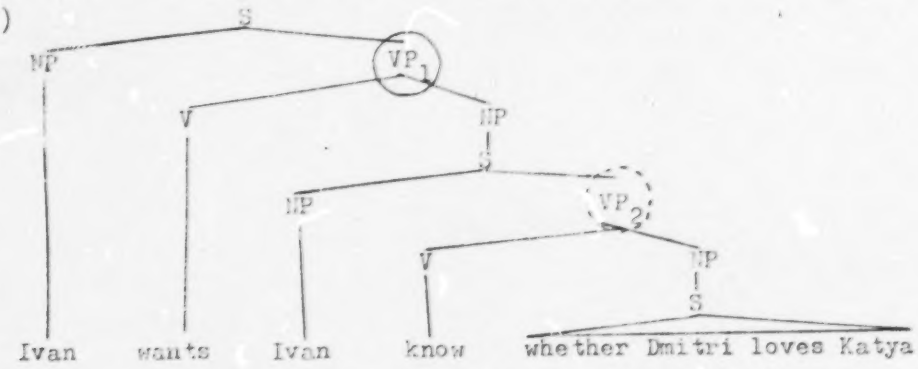
We neglect the categories of modal elements since the modal projection rule is defined in the semantic component of generative grammar.

We propose that the projection rules presented by Katz and Postal operate on the whole structures from the bottom to the top after the the detection of modal structures. Therefore, the projection rules leave open whether or not amalgamation of given phrase markers creates a well-formed reading until the rules pass through the structures relevant to the modal structures involved.

The issue which we must make explicit is how the semantic component gives interpretation to complement constructions like know whether S, which cannot be defined in terms of local determinacy. Modal elements contain 'Unrealized', 'Future', 'Ques', 'Neg', and 'Oblig'.

The modal projection rule for complement sentences applies to the underlying structure (106) since it contains the modal element want.

(106)



The modal projection rule deletes the modal structure as follows:

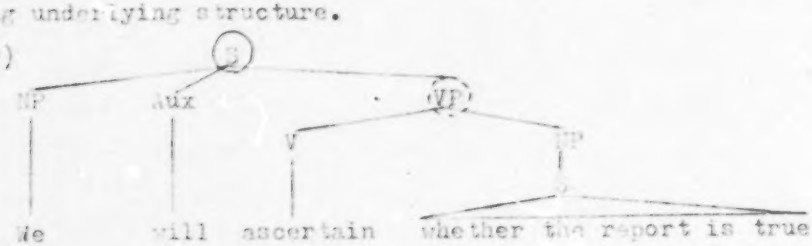
(107) Want (know (whether S))

After the detection of the modal structure (107), the projection rules operate on the structure (106) interpreting it from the bottom to the top. The projection rules amalgamate the readings of the term know and its complement and would mark the reading of VP_2 know whether Dmitri loves Katya anomalous since the combination of a V4-verb and a WH-complement is not properly interpreted. However, the determination of anomaly must be postponed until amalgamation passes through the modal structure (107). The rules operate on the subject NP Ivan and VP_2 and produce the apparently anomalous reading Ivan knows whether Dmitri loves Katya. The amalgamation of the modal element want and its complement creates the well-formed reading want to know whether Dmitri loves Katya. Finally, the rules operate on the subject NP Ivan and VP_1 and mark the reading (108) well-formed, but not anomalous.

(108) Ivan wants to know whether Dmitri loves Katya.

Second, we deal the modal structure of future will. Consider the following underlying structure.

(109)



The modal projection rule proposed detects the existence of the modal element will in (109) and defines as follows:

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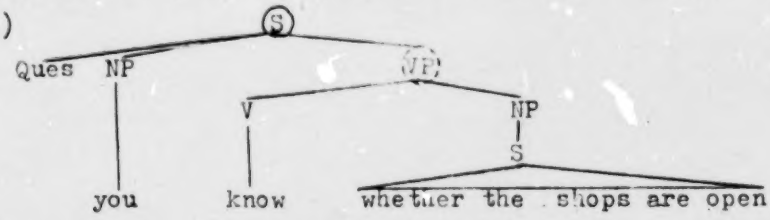
(110) Will (ascertain (whether S))

The projection rules operate on the verb ascertain and its complement and predict that the reading of (109) will be anomalous. However, when the rules amalgamate the subject NP, Aux, and VP, they create the well-formed reading of (109).

(111) We will ascertain whether the report is true.

We show the third case, which contains the modal element 'Ques'.

(112)



The modal projection rule operates on the underlying structure (112) and detects the modal structure (113).

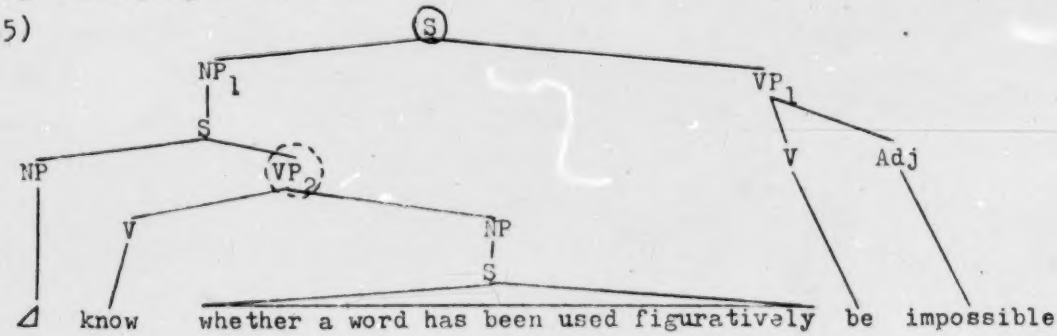
(113) Ques (know (whether S))

The projection rules produce the reading of (112) properly after the detection of the modal structure (113).

(114) Do you know whether the shops are open?

Fourth, we mention that 'Neg' is a modal element. Consider the following underlying structure.

(115)



The modal projection rule detects the modal structure as follows:

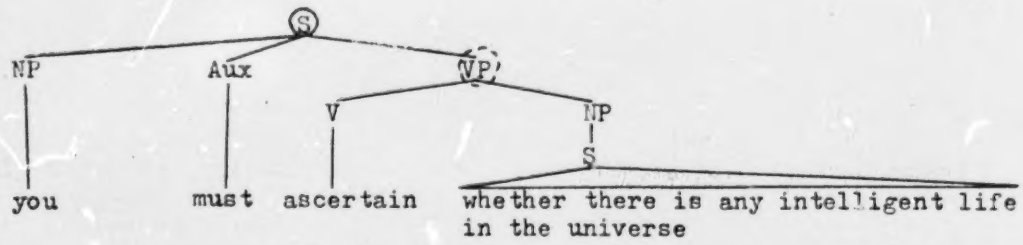
(116) Impossible (know (whether S))

After the modal rule detects the modal structure (116), the projection rules operate on the verb know and its complement and produce the reading of VP_2 know whether a word has been used figuratively. The reading is anomalous at this stage. However, the amalgamation of NP_1 and VP_1 can create the well-formed reading of (115).

(117) It is impossible to know whether a word has been used figuratively.

Finally, we show the case of 'Obligation'. The underlying structure (118) contains the modal element must.

(118)



The modal projection rule detects the modal structure (119).

(119) Must (ascertain (whether S))

After the detection of the modal structure (119) the projection rules operate on the verb ascertain and its complement. The rules also amalgamate the subject NP you, Aux, and VP, and produce the reading of (118) properly.

(120) You must ascertain whether there is any intelligent life in the universe.

III. Concluding Remarks

We have subclassified English verbs into five in terms of complement types as follows:

Verb Class	local	non-local	
V1	+WH COMP	-	: question
V2	+WH COMP	-WH COMP	: doubt
V3	±WH COMP	-	: tell
V4	-WH COMP	+WH COMP	: know
V5	-WH COMP	-	: believe

We have discussed the problem of local determinacy in English complement constructions and proposed that the modal projection rule for complement sentences is necessary to describe the complement constructions which cannot be defined in terms of local determinacy.

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Notes

1. Not only verbs and adjectives but also nouns take a whether-complement and/or a that-complement. Chomsky (1972) and Hashimoto (1972) discuss nominal complementation.
   i) the question whether John should leave (Chomsky (1972, p. 33))
   ii) the excuse that John had left
   Some nouns permit a whether-complement if and only if they occur with indefinite elements like negation and interrogation.
   iii) I have knowledge that this the shortest way to the station.
   iv) *I have knowledge of whether this is the shortest way to the station.
   Since the item have knowledge is under the influence of negation, sentences like (v) and (vi) are grammatical.
   v) ?I don't have any knowledge of whether this is the shortest way to the station.
   vi) I have no knowledge of whether this is the shortest way to the station.
   Sentences like (vii) are acceptable since interrogation affects the item have knowledge.
   vii) Do you have any knowledge of what is the best way to go there?
   The WH-word what cannot be preposed because of the Complex NP Constraint, which Ross (1967) proposes as one of the constraints on transformations. Sentences like (viii) are also acceptable since the adverbial phrase of purpose in order to affects the verb have knowledge.
   viii) In order to have some knowledge of whether my composition is written in correct English, I asked a native speaker.
   Hence, it is possible to state that the noun knowledge takes a that-complement locally but that the item cannot be defined in terms of local determinacy.

2. Chomsky (1973, pp. 277-78) points out that the verb ask appears in a variety of structures.
   i) a. John asked [+WH Bill saw who]
      b. John asked who Bill saw.
   ii) a. John asked [-WH Bill see who]
      b. Who did John ask that Bill see?
   The item ask in (i) means 'call for an answer', whereas ask in (ii) means 'make a request'. We discuss here the former case and treat the latter negatively.

3. Fowler (1926, p. 139) states that it is contrary to idiom to begin the clause that depends on these with that instead of the usual whether, except when the sentence is negated (I do not doubt...; There is no doubt ...; It was never doubtful...) or interrogative (Do you doubt...?; Is there any doubt...?; Is there any doubt...? Can it be doubtful...?) Ishibashi, et al. (1966, pp. 475-77) also discuss items such as doubt doubtful.

4. Bresnan (1972) points out that the WH-complement is often exploited in holding back, concealing, or deliberately leaving open certain information;
   i) I know who's to blame (but I won't tell you).
   ii) It's clear what must be added to the solution.
   iii) To an experienced engineer like Mary, it's immediately obvious whether a device like this will work, (but to me it's not at all clear at first).
   In order to explore the phenomena of connotation, it would be necessary

to define the presupposition of the sentence (i)-(iii) and to make clear the roles of 'subject' and 'speaker'.

5. The sentence (42) is essentially extracted from Jackendoff (1969), Russell (The Problems of Philosophy, p. 9), Barth (The End of the Road, p. 36), and Postal (On Raising, p. 446).

6. The sentence (46) is essentially extracted from Hornby (1956, p. 138).

7. The sentence (48) is essentially extracted from Kodansha's New World English-Japanese Dictionary (1969, p. 314).

8. Kajita (1969, pp. 685-86; 1974, pp. 400-01) mentions that the sentences (56)-(61) are extracted from The Standard Sample of Brown University.

9. We state that the sentence (69) is derived from (70). As for exclamations, Bresnan (1972, pp. 92-93) points out the absence of subject-auxiliary inversion in Exclamation Formation, and shows possible steps in a derivation as follows;
   He is such a fool! ⟶
   ?Such a fool he is! ⟶
   What a fool he is!

10. When the Neg in (84) would be a VP negation, the projection rules could produce a well-formed reading.

11. Jackendoff (1972, p. 321) proposes an intuitive test for sentence negation. A sentence $[_S$ X - neg - Y] is an instance of sentence negation if there exists a paraphrase (disregarding presupposition) It is not so that $[_S$ X - Y].

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